

ABSTRACT OF THE DISCLOSURE

~~A pneumatic radial tire having in axial cross section a highly curved tread reinforced by a breaker assembly with improved resistance to breaker edge looseness. The breaker assembly includes one breaker ply which extends between two bead regions and has its edges disposed between a carcass main portion and a carcass turn up portion.~~

An improved single-stage method for building ~~the a~~ tire includes the steps of forming a cylindrical-shaped carcass with axially extending carcass reinforcing cords, fitting annular bead hoops onto the radially outer surface of the carcass ply at positions axially inward of each of the carcass ply edges, assembling a plurality of breaker plies, including one wide breaker ply, centrally onto and about the radially outer surface of the carcass ply, and fitting onto this cylindrical assembly the remaining components of the tire ~~such as a centrally disposed rubber tread and flanking rubber sidewalls to form a cylindrical green tire assembly. The green tire assembly is shaped into a toroid and then molded in a heated tire mold to form the tread pattern in the tread and vulcanize the whole assembly, wherein the radial bias angle of the carcass reinforcing cords in the vulcanized tire changes progressively from 90° in the regions of the bead hoops to as low as 70° in the central crown region.~~